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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.       | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------------|------------------|
| 10/824,987  | 04/15/2004  | Willi Kaiser         | IT 138001 (5024-001122)   | 7546             |
| 26753   | 7590        | 01/25/2006           | EXAMINER                  |                  |
| ANDRUS, SCEALES, STARKE & SAWALL, LLP<br>100 EAST WISCONSIN AVENUE, SUITE 1100<br>MILWAUKEE, WI 53202 |             |                      | JOHNSON, SHEVON ELIZABETH |                  |
|   |             |                      | ART UNIT                  | PAPER NUMBER     |
|   |             |                      | 3766                      |                  |
| DATE MAILED: 01/25/2006   |             |                      |                           |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                      |                                      |  |
|------------------------------|--------------------------------------|--------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/824,987 | <b>Applicant(s)</b><br>KAISER ET AL. |  |
|                              | <b>Examiner</b><br>Shevon E. Johnson | <b>Art Unit</b><br>3766              |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 04/15/2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04/15/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/15/04 &amp; 9/29/04</u> . | 6) <input type="checkbox"/> Other: _____  |

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 18-23 and 26-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Nearing et al. (U.S. Patent No. 6,169,919).

In regards to claim 18, Nearing et al. discloses an apparatus comprising: a display (902 or 930); and means for producing a spatiotemporal representation of the T-wave alternans data on the display (col. 9, lines 14-26, Fig. 9).

In regards to claim 19-20, Nearing et al. discloses a method comprising: receiving digitized electrocardiogram data representing the electrocardiogram signal 1140; calculating odd median complexes for odd beats in the electrocardiogram data 1144; calculating even median complexes for even beats in the electrocardiogram data 1146; comparing the odd median complexes with the even median complexes to obtain estimates of the amplitude of beat-to-beat alternation in the electrocardiogram signal 1148; generating difference curves from the estimates of the amplitude of beat-to-beat alternation; and displaying the difference curves as a spatiotemporal representation of the beat-to-beat alternation in the electrocardiogram signal 1150 (col. 12, lines 17-28, Fig. 11B).

In regards to claim 21, Nearing et al. discloses a method comprising distinguishing between alternans distribution and artifact distribution (col. 10, line 64 – col. 11, line 3).

In regards to claim 22-23 and 26-29, Nearing et al. discloses a method comprising displaying the difference curves in a temporal alignment; assigning to each one of the estimates X, Y or Z coordinates and plotting the estimates to produce a two or three-dimensional representation; wherein providing an input for manual correction of the alternans data (col. 3, lines 37-43; col. 9, lines 14-26; col. 11, lines 4-26; Fig. 10).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-17, and 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Norris et al. (U.S. Patent No. 6,823,213) or Nearing et al. (U.S. Patent No. 6,169,919) in view of Nubling et al. (U.S. Patent No. 6,967,652) applicant's prior art.

In regards to claims 1-17, and 24-25, Norris et al. and Nearing et al. discloses substantially as claimed except the processor assigns data points a "color" corresponding to amplitude and displays the data points as a difference curve and a plurality of curves in a temporal alignment. However, Nubling et al. teaches a system (i.e. a processor 58 and display 62) and a method for displaying physiological patient data. Wherein the processor assigns the plurality of data a "color" (i.e. true color or gray scale) corresponding to an amplitude; the processor prepares a display of the data in temporal (spatiotemporal) alignment; assigning data points X, Y, and Z coordinates and plotting them to produce a two or three-dimensional representation (col. 1, line 38 – col. 2, line 30; col. 3, lines 38-56; col. 4, lines 1-8; Figs. 1 and 3-7). Therefore, it would have been obvious to any one of ordinary skill in the art at the time the invention was made to have combine Norris et al. or Nearing et al. with Nubling et al. provide a method of assigning data points a color corresponding to amplitude and displaying the data points in a temporal alignment in order to for the easy detect trends in physiological data.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shevon Johnson whose telephone number is (571) 272-2010. The examiner can normally be reached on M-F (8 a.m. - 4:30 p.m.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pezzuto can be reached on (571) 272-6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Shevon Johnson  
Art Unit 3766

  
Robert Pezzuto  
Supervisory Patent Examiner  
Art Unit 3766